Circles

Handout-3

1. If two chords of a circle are equal, then their corresponding arcs are congruent and conversely, if two arcs are congruent, then their corresponding chords are equal.
2. Congruent arcs (or equal arcs) of a circle subtend equal angles at the centre.
3. The angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.
4. Angles in the same segment of a circle are equal.
5. A quadrilateral is called cyclic, if all the four vertices of it lie on a circle.
6. The sum of either pairs of opposite angles of a cyclic quadrilateral is 180°.
7. If the sum of a pair of opposite angles of a quadrilateral is 180°, the quadrilateral is cyclic.

****